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HOG CHOLERA

AND

HOW TO PREVENT IT.

A PRACTICAL MODE OF TREATMENT FOR SUCCESSFULLY PREVENTING CHOLERA.

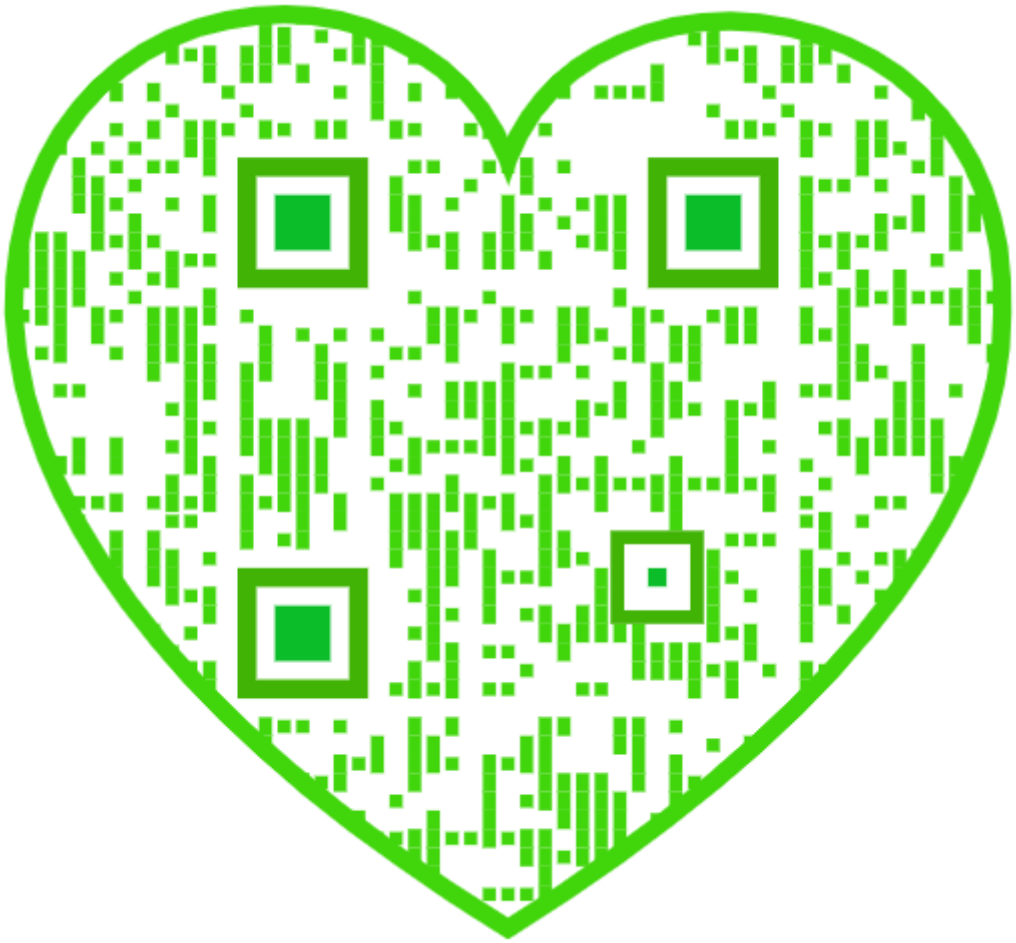
PART FIRST:—Hog Cholera—Its Causes—Its Preventive—Also Cure in its First Stages.

PART SECOND:—Breeding—Best Time to Breed—Treatment and Care of Hogs from the Sucking Pig up—Diarrhea in Pigs—How to Prevent and Cure it—Fattening Hogs—Wintering Hogs, &c.

BY W. T. BROOKING.

PRICE $2 PER COPY.

MACOMB, ILLINOIS:
JOURNAL STEAM PRINTING HOUSE.
1877.



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INTRODUCTION.

THE PAMPHLET you are going to read is just what it is—imperfect in many places, yet, as a whole, pretty much what I expected to make it. I have not prepared a feast for an epicurean literary taste; all such need not criticise, but can stand aside and let the Farmers and hog raisers to the front to digest its pages.

I have endeavored to make myself understood in giving my experience with hogs, which I have been years in obtaining. I hope I have succeeded.

This phamphlet claims to make known to the Farmers and hog raisers how to prevent cholera in hogs. If it does this it will have accomplished the purpose for which it was written.

Its mission is to give a practical mode of treatment for preventing hog cholera. It relies on no medicine, or remedies by themselves, but in connection with other rules of treatment which is the only practical means of preventing cholera. Any man, who practices the teachings of this phamphlet, will *never* loose hogs with cholera. It was, this honest conviction, that induced me to write this pamphlet. The pamphlet is divided into two parts. Part First treats of Hog Cholera, Its Causes, Its Preventive, and Cure in its First Stages. Part Second treats on Breeding, Raising Pigs, Fattening, Wintering, &c., Diarrhea in Pigs, how to prevent and how to cure it.

I believe I am offering a good thing to the farmer, something worth many times the sum asked for it. All books and pamphlets published are criticised much or little, as they deserve. I care not for criticism on the composition or style of writing, but I ask a favor, that you will not condemn the teachings and principles advocated until you have tested them thoroughly. It makes no apologies; it only asks the favor of a fair trial. It submits its claims to the farmer and hog raiser on its naked merits, and appeals to their good sense to endorse or reject its teachings, as they please. May it be the means of preventing cholera wherever it goes.

W. T. B.

HOG CHOLERA.

PART I.

CHAPTER I.

Hog Cholera is a disease that made its appearance in this country about the year 1854. Hogs were affected with disease previous to that time, but not in such a malignant form as to have the name Cholera attached to the disease. Whether the disease of Cholera really existed prior to that time I am not prepared to say, but it was about the time mentioned that I first heard of Hog Cholera.

The disease received its name, no doubt, from the fact that, in some cases of cholera, hogs are affected with purging and vomiting; that is, however, only one of the many symptoms of cholera in hogs. I have lost a great number of hogs with cholera, and I find they are affected in many ways. From my own observations, and the description of the symptoms from others, I consider the following symptoms about correct:

The first thing usually noticed is, the hogs look badly, seem tucked up in the flank, seem stupid, ears droop, have a general appearance of not doing well, and have some cough. This is what I call the first stage of cholera, *viz:* the conditions most favorable for cholera to take hold in its more dangerous forms. Generally the above symptons are first noticed, but not always; sometimes a hog will appear perfectly healthy and in three hour's time be dead; but, as a rule, they appear diseased and "out of fix" before taken in the worse forms of cholera. Worse

forms are *sure* to follow—if not prevented by the proper treatment and remedies—with the following symptons:

The next thing noticed is the refusal of food, of any kind, which continues throughout the entire sickness. Great thirst is present and large quantities of water will be swallowed if it can be obtained. After a time, the length of which varies much, the animal begins to show signs of weakness, reels, staggers, and, in attempting to walk, falls down. In some cases there is diarrhea, with copious fluid discharges of a dark, bilious and very offensive matter. In some cases there is no diarrhea, but evacuations are hard. You will sometimes see them vomit, but not severe, nor does it continue long. At first you notice but very little difference in the color of the hog, but towards the last of the sickness, purple spots appear, first on the nose and sides of the head; these extend along the sides and belly, and between the hind legs and around the ears, after which the animal soon dies. In the advance stages ulcers are found on different parts of the body, on inside of the lips and gums and the back part of the mouth. The legs, ears and sides of the head are sometimes swollen and red, and the eyes are sore and inflamed. Sometimes swellings, like carbuncles, are seen. In the majority of cases the pulse is quickened, the breathing hurried and difficult, and there is considerable cough. The duration of the disease, in fatal cases, after the first symptoms are noticed, is extremely varible. Some die within two or three hours, while others live for many days. When you see one approach the feed, smell of it, take a little in his month, spit it out, and walk of in a sulky and apparently offended manner, you need not be surprised at finding him dead any morning when you go out to feed. These symptoms you frequently see in hogs that weigh from two to four hundred pounds.

I have given some of the symptoms of hog cholera, not because I think you do not know them, not at all, for I know that the farmer and stock raiser have seen more of the symptoms and effects of cholera than they cared about seeing. In opening hogs that have died with cholera, making *post mortem* examinations, you will find them diseased in different parts.—Worms in the stomach and intestines, in some cases, in the throat. You will find the lungs of some inflamed and swollen; in some cases the liver is grown fast and shows a diseased and discolored condition; in some the stomach is diseased.

That they are affected in a great many ways there is no doubt. It is this fact that has given rise to so many different theories in regard to hog cholera. One man will examine a hog that died with cholera and finds the lungs diseased; he pronounces

it a lung disease. Another finds worms, and calls it a worm disease. Still another finds the throat diseased, and calls it a throat disease, and so on; men differ. Hence, the different modes of treating and doctoring the disease.

It is a disease that is not confined to any certain locality, but is found to prevail in all parts of the United States, in a greater or less degree, showing, most conclusively, that climate does not cause the disease. Hogs are subject to cholera in the cold climate of Minnesota the same as in the mild climate of Texas. That hogs are subject to, and do die in great numbers of cholera in all parts of the United States, is a fact that is beyond all controversy; but, we find from the best statistics and reports, that the ravages of cholera are much greater in the great corn producing States, such as Indiana, Illinois, Iowa, Missouri, Kansas, and all States where corn is the chief crop. In the next chapter, on the Causes of Cholera, I will give my theory in regard to hogs suffering worse in the great corn producing States than elsewhere.

Cholera attacks hogs at all seasons of the year in summer and in winter, in the spring the same as the fall. We see from this that it is not the change of climate, or season, that causes the disease. Sometimes it will appear worse in winter and sometimes worse in summer; more hogs die in winter than in summer, the reason for which will be given in another chapter. Cholera attacks hogs at all ages, from the sucking pig to the full grown and fully developed hog ready for the market.—From one day up to the time they go into the pork barrel they are subject to this disease. Cholera is the name given to almost all forms of disease to which the hog is subject, excepting thumps, kidney worm and blind staggers.

IS CHOLERA A CONTAGIOUS DISEASE?

There is a difference of opinion in regard to cholera being a contagious disease. Some say that it is, while others contend that it is not, but, I believe, the general opinion is that it is contagious. I believe it is contagious to a certain extent. I do not believe that there is any poison, or malaria, in the air or atmosphere that causes the disease. I believe that hogs in actual contact with cholera hogs will receive the infection, if they are not kept perfectly healthy with the proper preventives; but by using the proper means of its prevention, as recommended by this pamphlet, you can let your hogs run with cholera hogs, those affected with the disease, and have no fear of losing any. I have now about one hundred and fifty hogs, old and young, perfectly healthy, no coughing or wheezing, no signs of cholera

in any particular. And, I can say, I would not experience any nervousness or fear to turn a lot of hogs in my pasture that were diseased in the worse form with cholera. I say this much to show the perfect confidence I have in the efficacy of my treatment for its prevention; but, without this treatment, I believe that the diseased lot would communicate the disease to the others by sleeping in the same beds &c. Use the preventative and have no fears, and best of all no cholera.

Some think it is contagious from this fact: A has a lot of hogs; he thinks them perfectly healthy, no cholera among them. His neighbor, B, has the cholera among his hogs, and, in a short time, A finds his hogs dying with cholera. He says they caught the disease from B's hogs. This may be so, and it may not. In all probability, his hogs became diseased from the same cause that his neighbor's did, and that cause, Improper Treatment, which is THE great cause of diseased hogs.

One man may have cholera among his hogs and his nearest neighbor may not lose a hog, or have any diseased, simply because he attends to his hogs better, or more as nature intended they should be treated. I believe it is contagious only when the hogs mingle together, come in contact with each other, sleep in the same bed, &c.

I would say, in conclusion on this subject, that whether the disease is contagious or not, it is best to take all necessary precaution against it in observing cleanliness, keeping the sick away from the well ones, and, especially, keeping them from bedding together; use the preventive freely and have no fear of cholera getting among your hogs, although it may be all around you. In connection with this chapter we will speak of some of the

EFFECTS OF CHOLERA.

There is nothing the farmer can turn his attention to of all the products of the farm, that will be more remunerative, or pay better, to the money invested, than that of hog raising, provided his hogs escape the terrible disease of cholera. There is money in raising every kind of stock—sheep, cattle, etc.—that is true; but is there, intelligent farmer and stock raiser, as much money in raising any other stock as that of hogs, when they are not diseased? I think your answer is, there is not. Every farmer and stock raiser knows that there is more money in hogs than any other stock, making reasonable allowances for loss by cholera. The vast numbers that are raised every year throughout the length and breadth of the land, is evidence enough to establish this fact. Now, why do farmers calculate

for loss? When they buy cattle, sheep, or horses, they make no such enormous calculations for loss. The reason is this: the disease of cholera has become so prevalent in the Western States that hardly any farmer escapes losing some, and with many, their entire lot. There are men by thousands who will say, hog cholera ruined them financially, and thousands more will tell you they have been damaged by cholera, and but few men will say there is no risk to run in buying fifty or one hundred stock hogs. These facts have created a distrust in the minds of the people, so much so that they do not raise as many as they otherwise would, nor go into the business as extensive. Therefore, the people are greatly damaged by cholera (especially the Western people), much more than a great many think.

Does the effects of cholera affect the prosperity of the Western people, and especially our own State of Illinois? Read the statistics of Mr. Dodge, statistician of the department of agriculture before answering this question. He reports as the result of investigation of the losses from disease of swine, during the past twelve months, the destruction of four million animals of all ages, and a money loss of more than $20,000,000. One fifth of the reported loss occurs in Illinois. The next in prominence are Missouri, Iowa, and Indiana, which together lose $10,000,000. Florida, Alabama, Mississippi, and Louisiana, have nearly as large a percentage in loss in numbers, aggregating in value $1,500,000. The losses are very small in the country bordering on the great lakes and the Pacific coast. Of the remaining districts, West Virginia comes nearest exemption, and Ohio and the Atlantic States stand better than the alluvial districts. The apparent loss is equivalent to a third of the sum exports of pork products of last year. This is enough to show the effects of cholera. Is it not time people were seeing into this? Is it not time people were adopting different modes of treatment for swine? The legislatures of some States, seeing and knowing the effects of cholera, have offered a reward (I have been informed) for a cure, but their legistation in this direction will prove a failure. They should offer a reward for a preventive, if they really wish to benefit the people. Until people use proper means and treatment to prevent cholera, and remove its causes, it will rage in all its terrible forms; for no medicine has ever yet been discovered that will cure every case of cholera, and never will be. How is the medicine to take effect on a hog that was well, to all appearances, in the morning, and dead before noon? They sometimes die in that length of time. There is no such thing as a practical cure for

hog cholera. The legislatures would do better to offer a reward for a practical mode of treatment for its prevention.

That there is a cause for cholera and its terrible effects on swine, and the prosperity of the country, I presume no one disputes, for there is not an effect without a cause, according to the laws of cause and effect. The causes of cholera are given in the next chapter.

CHAPTER II.

CAUSES OF CHOLERA.

When disease manifests itself in human beings, means are taken at once to find out the cause and remove it. All means possible are used to find out what natural laws of health have been violated; for nature has done all things well, and in her economy has established laws of health for man and animals; and for them to be followed insures perfect health, while their violation incurs disease, and they have to suffer the penalty.

Therefore, it behooves men to be careful how they violate these natural laws, and also to select out of nature's bountiful store-house, the kind of food best adapted to their wants for the promotion of health and the prevention of disease. And the nearer man complies with these laws and requirements of nature, in the selection of food nature intended for him, the more assurance he will have of health. The same is true in all animals. The departure from nature's laws and requirements being the direct cause of disease, we will see in what particular nature is violated in the general treatment of hogs, or tell what causes the disease of cholera. Two words answers this all important question of what causes cholera, viz: *Improper Treatment.*

The hog is endowed by nature with a splendid physical constitution, rugged and hardy; given strong and powerful lungs, and a powerful stomach and digestive organs, by which to convert his food into blood and fat. He has powerful jaws, well

set with strong, sharp teeth, and bone and frame enough to carry a remarkable amount of fat. They are also provided by nature with a strong muscular nose or snout, to aid them in procuring food. There is nothing in their physical structure that appears weak or deficient. Now, why does disease attack them, and all other domestic animals comparatively escape? The reason is this: Other animals are better cared for, better treated, and fed on the food that is adapted to them by nature. On the other hand, the hog is forced to eat almost one article of food. I refer to the feeding of corn The natural food of hogs is grass, roots, worms, vegetables, and small animals. Where they are allowed range enough, they keep perfectly healthy on grass, roots, worms, and so forth, such as they would find in the timber and on the prairie. With the aid of memory, look back to the first settling of this country; hogs were generally healthy then; no disease of any consequence; occasionally one would have the thumps I never heard of cholera in hogs previous to 1850. Now, *why* were hogs healthy then and no cholera among them? It is very plain to my mind. At that time they fed on their natural food, the country was new, not so thickly settled, and not so much corn raised. Men then were busy improving their farms, getting more land in cultivation from year to year, consequently their hogs had to run at large in the prairie or timber, and the hogs lived through the summer and fall on their natural food, and were of course healthy. As the country became older, there was no place for hogs to run at large; they had to be confined in pens or lots, and then fed nothing but corn. Brother farmer, do not the majority of farmers feed corn, and nothing but corn, to their hogs, and that in its dry state out of the crib? Now, if the people of Illinois, or any other State, will feed as little corn as possible through the spring and summer months, they will cut their losses by cholera down fully one-half. Over-feeding of dry, heating corn during these months is the most prolific source of cholera. Corn is our chief crop in the West, and being excellent for fattening hogs, the farmer feeds it and nothing else, so they become heated, their system clogged, and cholera is the result.

I have been informed by reliable men that hogs fed on the refuse swill from still-houses generally suffer from cholera. This goes to prove that hogs do not require anything heating in their food, especially if it is their chief food, as corn is with a great many.

Hog cholera is much worse in the great corn-producing States, as all statistics will show. In the States where but little

corn is raised, cholera is scarcely heard of. I ask all observing stock raisers if this is not so. What more argument do we need to prove that corn is its main cause. As well produce argument to prove that the sun shines at noon-day—a known fact needs no proof.

One may say, you discourage the feeding of corn, what will I feed, what substitute will I find? I do not discourage the feeding of corn; it is its over-feeding in the spring and summer of dry corn that is objectionable. Many farmers are finding this to be the great cause of cholera, and are coooking their feed, and not feeding so much in its dry state, and before many years, cooked feed will be extensively used for fattening hogs.

I have given the main or chief cause of cholera. Of course there are minor causes to be considered, such as neglect, irregular feeding, bedding in old beds, laying around manure piles and straw stacks, running under barns and inhaling the poisonous dust that has been accumulating for years, and being fed in the same place so much as to be compelled to inhale the dust that rises while they are eating. Then, in wet weather, some men never change their feeding place, but continue to feed in the mud, to the detriment of their own best interests. Any treatment, in violation of nature, has a tendency to create disease. Such treatment as ringing their noses is in direct violation of nature. If it was not the hogs' nature to root in the ground, he never would have been provided with such a formidable tool as his nose is. Spaying sows is another violation of nature, and therefore a cause of disease. In the treatment of hogs, there are some violations of nature that are unavoidable—castrating, etc.; therefore we should be all the more particular about avoiding those that are avoidable.

When a man has a large lot of hogs, and the cholera sweeping them off by the dozen, then is when he wants something to cure them, and keep from losing them all. He cares very little about hearing a scientific lecture on the nature of the disease. He says it makes no difference to him what the disease is; he cares nothing about your scientific ideas; what he wants is something to cure his hogs, and prevent others from having it. Any man that can prevent cholera, and cure it in its first stages, does more than the wise philosopher who makes a scientific explanation of the nature of the disease. The idea is this, a man that can prevent disease, does more than the man that can cure it; and the one that can cure it, does better than the man that can explain, but neither prevent nor cure it.

What the farmer wants is less scientific foolishness, and more practical knowledge in the treatment of hogs. Not that I con-

demn science at all, but I do condemn men that profess to cure every case of cholera, and have expensive receipts to sell, give a so called scientific diagnosis of the disease, when they know nothing at all about it; they probably know a hog when they see it, and that is about the extent of their knowledge. I have my opinion of any man that claims to cure every case of cholera. Any man who claims it, makes confession to the hog-raiser of his limited experience with hogs.

In giving the causes of cholera, it may be expected of me to give my views in regard to where cholera first makes its appearance in a hog, or what part it attacks first. This is hard to do, as they are taken in so many different ways, as every farmer knows. In some cases they are taken with a cough first, others with diarrhea, others constipated, some discharge hard balls, and others worms. Some claim it to be a worm disease, others a lung disease, others a bowel disease, and still others a throat disease. The only reason that I can give for it attacking them in so many ways is this: *possibly* the disease originates in the blood, and the diseased blood, circulating through the entire body, diseases all parts. This blood is circulated by means of veins and arteries through every part of the hog, and if it is diseased or impure, it is possible for it to cause disease in any and all parts of the animal. Certain portions of the food is converted into blood. If this is not the right kind of food to furnish the necessary ingredients for the composition of the blood, it is not as it should be, and consequently impure, there is either the lack of something that should be there, or the presence of something that should not be there. Let science tell which and what it is. There are some arguments in favor of this theory. One is that the blood of different hogs slaughtered shows a marked difference in its color—the blood of some is lighter than others. It is easy to tell the red color always seen in the blood of healthy animals. Now, who is the man that will say that blood always contains so much iron, so much salt, so much of this and so much of that component parts, under all circumstances and conditions. I am not prepared to say how much of the life-giving power is in the blood of one animal, and how much another one is suffering from poverty of the blood. But I can say that there is a difference in the appearance and color of the blood of hogs slaughtered, as any man can prove to his entire satisfaction, by comparing the blood of different animals killed at the same time. To all who cannot detect the difference when they butcher, and think that the blood of all hogs is the same color, I would say to all such, to compare the blood of a cholera hog with that of a healthy one,

then the difference will at once be apparent. You can plainly see the lack of red blood in a cholera hog without having to kill him; there is a purple or blueish discoloration under the throat, and along the belly, and behind and around the ears, that you have noticed perhaps just before a hog would die with cholera, and deepen into a darker blue after death. What causes that discoloration? The want of good red blood in its veins. Whether the disease originates in the blood or not, there is one thing very evident, that when they have cholera bad, and are dying with it, they lack considerable of the red coloring matter in the blood.

You may say that if the disease originates in the blood, why does it not manifest itself by cutaneous eruptions, or in other words, by eruptions of the skin, as all impurities of the blood do? I have but one known fact to answer this argument, in my experience, and that is this: About nine years ago I was losing hogs with cholera. One day when I was feeding, I noticed another one that would not eat; I expected next morning to find him dead, but such was not the case; he was alive, but no better, would not eat, and I considered him as good as dead. I could not understand for several days why he did not die. Others were dying that were not as sick, apparently, as he was. He was as sick a hog as I ever seen, for about a week; then his skin began to crack open along his back, from the back of his neck to his tail, also on the shoulders; the cracks looked bloody and raw, as though they had been cut with a knife; he began to eat a little, but improved very slowly; he eventually got well; the eruptions healed up, leaving a terrible scar; no hair ever grew on the places where the scars were. I had never seen or heard of cholera affecting hogs in this way before, but since then I have heard of others being affected in the same way. I mention this fact simply as an argument in favor of the theory of cholera originating in the blood. I consider it the most remarkable case of hog cholera that ever came under my personal observation. I can give no other reason or cause for the hog being affected as described, than that the disease existed in its blood. In this case I will believe that it did, until informed to the contrary. Because all cholera hogs are not affected as this one was, does not prove that their blood is not affected or pure. I know of no other reason (as before mentioned) for hogs being affected in so many ways with cholera. Who will be the man that will give another and better reason.

Has this chapter given the causes of cholera? Is *improper treatment* the great first cause? In other words, is the violation of nature a cause of disease? Do the swine of the present day

live on the food nature intended for them? Is one article of food all that is necessary for the hog. Does lots and pens afford exercise enough for them? Does the hog eat one-fourth as much of any other article of food as that of corn? Does corn, by its injudicious use, as a feed for swine, cause cholera? Is spaying sows and ringing hogs noses in accordance with nature?

I submit these questions to the farmer and hog raiser; also the entire chapter to the practical hog raiser for their consideration.

CHAPTER III.

TREATMENT OF SWINE TO PREVENT CHOLERA.

If the violation of nature's laws is the cause of disease or cholera in hogs, perfect conformity with these laws is its preventive, or treating them as near as possible under the circumstances as nature intended they should be. That a preventive is better than a cure, I presume no man disputes.

When the Asiatic cholera, that scourge of the human race, makes its appearance, the people everywhere do all in their power to prevent it spreading. Want of cleanliness being its great cause, boards of health are appointed to remove all stagnant pools, and all kinds of filth, and no food that would be likely to cause the disease is used. By all the various means used for its prevention, the disease is held in check, and its ravages comparatively small to what it would be if no such precautions were taken. What would be the result if people waited until the disease was amongst them, and then relied wholly upon some medicine to cure them? For what purpose is the vaccine matter communicated to the human system, if not to prevent the terrible ravages of small pox? How many thousands of people owe their lives to this means of prevention? Every one can see that the principle of a preventive is best.

As the saying is, "a stitch in time saves nine"—"an ounce of preventive is worth a pound of cure," etc.

I will now give a practical mode of treatment and doctoring for successfully treating cholera in hogs. *A sure preventive*, one that has not only proved itself satisfactory to me, but also to others. I will, in a subsequent chapter, speak of the cure of cholera in its first stages, which is the only way it can be cured.

Never keep your hogs up in a dry lot at any season of the year, for it is not their nature to be confined, but have a good pasture for them to run in, with plenty of fresh water; running water is best, for the reason that they have it constantly by them, which is not always when a man has it to pump. In winter, when the water is frozen up, see that your hogs get water twice a day. Creeks and streams of water are nature's water-troughs, and all animals (if not prevented) resort to them at will, to quench their thirst. In winter, when they are frozen almost solid in some places, in other places there are air holes. so there is no time but what animals in their natural state can procure water.

Any kind of pasture is good for them to run in where there is plenty of grass; a woods pasture is excellent—there they find grass, roots, and worms, and small animals, hickory nuts, hazel nuts, and berries of different kinds, and various kinds of food suited to their nature. The home of the hog is the brush and timber, and when he is kept away from the brush, out in the prairie, he should not be kept in a close bare lot, but in a good large pasture, and let him root all he pleases. Some men dislike very much to have their pastures rooted up by their hogs, so they put rings in their nose to prevent it. *Never do it.* Let them root; they find roots and worms; they do not root for devilment; they are finding the very food nature intended for them. I have put rings in hogs noses to keep them from rooting, but I have found it does not pay; it pays me better to have my pasture rooted up than to ring their noses. In the spring, sow a patch of oats, and let it get a start before turning your hogs upon it; they will thrive and do finely upon the oats and pasture. See that your hogs have a good shade to lay under; if there are no shade trees or thicket, have a well ventilated hog-house, with plank floor in it, for them to lay in. While the oats and grass is tender, they will not need a particle of corn, but as the summer advances the grass becomes tougher, and then it becomes necessary to feed a little corn; one or two ears each, a day, to stock hogs is sufficient to keep them in good

condition, if they are kept healthy. I shall speak of fattening hogs in another chapter.

Do not dose your hogs on the poisonous drugs that most of the five and ten dollar receipts contain; for such poisons injure hogs, if they do not actually cause disease. The fact that all poisons do not kill hogs, does not prove that they are good for them.

I will now give my treatment and doctoring of well hogs for

PREVENTING CHOLERA.

1st. Give one-half pint of salt, dissolved in a pail full of water or slop, every other day; give as many pails full as they will drink. Do not miss over two days at farthest in giving them all of the salt and water they can drink. It is the best medicine you can give your hogs for preventing cholera, if given as directed.

2d. Give in slop, once every two weeks, one teaspoonful of pulverized tobacco to each hog; tobacco in the hand commonly called long green is best, dry it, pulverize it, and give strictly according to directions.

3d. Give ground copperas once a week, in slop; mix enough to color the slop a little. Give as much as they will take.

4th. Feed on board floor, if possible, and keep considerable quantity of wood ashes on and around the feeding place.

5th. Give soap suds once a week.

6.th Feed not more than two ears of dry corn a day, at any time, unless you are fattening; it is best not to feed any corn while the pasture is young and tender, to stock hogs.

7th. Sprinkle unslacked lime over the floors of your hog-houses, to keep them pure; clean out the houses as often as necessary. Have no bedding of any kind, only in winter.

8th. Do not let your hogs run about the barn or manure pile, nor straw stacks. Have a good shade for them in summer.

9th. In winter, have board houses for your hogs, well ventilated at the top; use hay and corn stalks for bedding; change as often as necessary; never let over twenty or twenty-five bed in one house together.

10. If you have a horse, cow, or sheep to die, feed the carcass to your hogs, for their nature demands something of the kind, really more than they get.

CHAPTER IV.

HOW TO CURE CHOLERA.

Can cholera be cured? is a question frequently asked. Some answer emphatically, it can; while others go to the other extreme and say it cannot be prevented, and that hogs will die with cholera in spite of all man can do to prevent it. I have bought expensive receipts, and tried them faithfully, but none of them ever proved a sure cure. That *some* of them are good for hogs, I do not doubt, but any man that relies wholly upon any receipt or medicine for curing cholera, will find out in time that it is not the thing; that it is worthless, independent of other rules of treatment. I have paid out a considerable sum of money for medicine to cure hog cholera, but found none that proved to be a sure cure. Believing that there was no cure to be relied upon, first induced me to find, if possible, some means of preventing the disease. I used my own experience, and observed the different ways men treated hogs, and the success attending the different modes of treatment, and have succeeded in preventing cholera by right treatment, and simple but effectual remedies.

I have made observations and experiments to satisfy me of its causes, and also that cholera cannot be cured if its causes are not removed. Now, if these causes are removed, and the right treatment commenced in time, I claim that it can be cured in its first stages.

You may ask, what are its first stages? I mean this: as soon as a man sees that his hogs are diseased, looking bad, tucked up in the flank, ears drooping, not doing well, and a general appearance of disease among them, then is when he must be about it to save them, and not wait until they quit eating and begin to die before doing anything for them.

If the rules and treatment laid down in the preceding chapter were strictly followed, there would be no necessity for this chapter or the cure being given. But for the benefit of those who may have cholera when they receive it, and all who neglect to use the necessary preventives at any time, and have cholera among their hogs, for all such this chapter is written.

After thirty years experience raising hogs, and using different receipts and expensive medicines for curing cholera, I will

now give you the best receipt for curing cholera that I know of, in fact the only practical means of curing cholera.

FOR CURING CHOLERA.

1st. Remove all that show any symptoms of cholera to themselves.

2d. Feed as little corn as possible to stock hogs; if fattening hogs, reduce the feed of corn, or change the feed entirely; if you feed much corn, cook it; burn all corn cobs and husks.

3d. Have a good pasture for them to run in; keep them away from the barn, straw stack and manure pile.

4th. In summer, have a good shade for them; in winter, have a comfortable hog-house, well ventilated; let but fifteen bed together in one house.

5th. Remove them from running water, or water of any kind, for the reason that if they get all the water they want, they will not drink enough of the salt and water.

6th. Dissolve two-thirds of a pint of salt in a pail full of water or slop, and give as many pails full as they will drink, every other day.

7th. Give in slop, once a week, one tablespoonful of pulverized tobacco to each hog.

8th. Give ground copperas once a week in slop; mix enough to color the slop.

9th. In about ten days, give them some soft soap, mixed with slop.

10. As they gradually improve, and their appetites become stronger, fall back to the treatment of well hogs for preventing cholera; give them all the slop you can; buy bran and make slop; the more grease in it the better; get them started to thriving on slop, and other kinds of food, and then gradually add the corn to their feed.

11th. After the foregoing rules have been thoroughly followed, and some few of them seem not to be improving, or are growing worse, give the salt and water as before, and all cooling drinks, buttermilk, etc., and give twenty drops of perchloride of iron, twice a day, in a little milk or slop, to each hog.

If you follow the above rules, rule eleven will be very seldom needed. When one refuses to eat, these rules do not claim to cure him.

Treatment of Hogs.

PART II.

CHAPTER I.

SWINE—ORIGINAL.

Professor Low's work on the domestic animals of the British Islands is so often referred to by writers on swine, that I give a few extracts (all that I am able to procure) of his observation, on the description of stock:

The hog family comprehends various species, and according to the views of modern zoologists, several *genera*. All the species are allied in the form, temperament and habits of the animals; the face is prolonged, truncated, and terminated by a movable cartilegeous disc; the skin is thick; the body is covered more or less with bristles and hair; the neck is strong and muscular; the limbs are stout and short. All the species feed on plants, but especially on roots, which their strong and flexible trunk enables them to grub up from the earth. They devour animal substances, but they do not seek to capture other animals by pursuit. Like the thick-skinned rhinoceros, the hippopotomus, and the tapir, they delight in humid and shadowy places. They are voracious and bold in their defense, but have nothing of the thirst for blood which distinguishes the carnivorous tribes. Their voice is a kind of groan or grunt, though when wounded they utter piercing cries. Their senses of smell and hearing are eminently acute. The species may be divided into two groups: 1st, those inhabiting the old continent; and 2d, those proper to the new, namely, (1) the wild hogs of Europe, Asia and Africa, the Babiroussa of the Indian Islands, and wood swine and wart-bearing hogs of Africa; and (2) the pecarries of America. The wild hog or wild boar

susaper, is greatly the most diffused and important. He can be domesticated with the utmost facility, and in a single generation his descendants relinquish the habits proper to them in a state of nature. In the new world, the hog family likewise appears, but under a distinct form. These animals, termed pecarries, are smaller than the common swine of Europe, but resemble them in their general form.

CHAPTER II.

THE IMPROVEMENT IN SWINE AND HOW TO RETAIN IT.

The improvement which has been effected in the character and quality of the swine family is indeed remarkable. The worse scrubs we have in this country is a wonderful improvement over the original. The improvement during the past few years is certainly a matter of sincere congratulation. No matter in what region one travels, even among people in all other respects far behind the times, the general excellence of the hogs, as compared with hogs of a few years ago, is so great as to attract the attention of all hog raisers. Everywhere the presence of good blood is observable, and it may be taken for granted that the Western farmer is substantially convinced that it will not pay him to raise scrub stock, and that the profits which he can secure through the feeding of hogs is in a very marked degree dependent upon the extent to which he introduced improved blood into his stock.

Having attained this improvement in the stock, the breeder should see to it that this improvement is not lost. I know of cases here and there where farmers, seeking fresh blood for their stock, have exchanged boar pigs with their neighbors, instead of purchasing a boar of some one of the recognized breeds from an established breeder. I am certain that if this practice was to become general, the improvement to which I have referred would be in danger of being to a considerable extent lost. The improvement which has taken place in hogs, as well as in other descriptions of stock, is the result of careful crossing

and selection, continued through many generations. So long as the same care and pains are taken, this improvement can be maintained, even if it is impossible to carry it further. But there are no breeds of hogs, no matter to what extent they have been improved over the original types, or how long this improvement has been maintained, that will remain at the present standard if the care of breeding is withdrawn. There is a constant tendency to return to the scrub or original type.

The general farmer of the community, who makes the production of pork one of the leading features of his business, cannot afford to give the mating of animals the care which the professional breeder bestows. Neither can he devote to a study of the effects of uniting different strains of blood, the time and attention which characterize the investigations of the regular breeder. The general farmer, even if possessed of all the mental qualifications, cannot afford to do this, because of the extent to which it will divert his time and attention from the regular and usual duties of the farm. He can better afford to let other men, who make this a specialty, undertake the work of producing animals squarely up to the standard of the improvement which has been secured. The professional breeders producing animals of this character, the general farmer can better afford to purchase from them such animals as he needs to give the desired amount of fresh blood to his stock, than to undertake to prevent, within his own means, the degeneracy of his stock.

By the introduction of frequent crosses, from first-class and carefully bred stock, the farmer can combat the tendency of his own stock to degenerate to the original type, and hold it as near the required standard of perfection as the practical, every-day purposes of the farm require.

CHAPTER III.

CROSSING OF SWINE.

A VERY important question to the farmer, one who has the

common or scrub stock, is: which of the thoroughbred breeds are most desirable for the improvement of the common hog or mixed breeds of the country? If I may be allowed to answer that question, I will say that the Berkshire is most decidedly and emphatically the one for that purpose, and there are several very good reasons for this conclusion.

They will improve the quality to a greater extent with the first crossing than any other kind; they transmit an excess of their own nature to the progeny, and the qualities which they transmit are all desirable.

By an infusion of the Berkshire blood, we reduce coarseness, create symmetry, improve the constitution, modify the disposition, add to the fattening propensities, and develop early maturity in all the common and coarser kinds.

The Essex and Suffolk are also good to cross with the common stock, but not as good, for several reasons, as the Berkshire.

If these facts were generally known, and the knowledge applied, it would prove of great advantage to the pork-producers of the country, and every farmer is more or less interested in that. As before intimated, the effect of one cross with the Berkshire is more decided and thorough than that of any other breed with which I am familiar, and will overcome the undesirable features of the original, sooner than it can be accomplished by most any other breed. Many farmers, though possessing sufficient enterprise to procure a good breed, will soon let it run down for the want of necessary renewal, and other causes, such as neglect, carelessness, ignorance, etc.; and in such cases, a cross with another breed may be desirable, and will often produce results that are almost surprising, that is, for feeding purposes, which, however, is the ultimatum of all the hog kind.

There is no question but the proper crossing of thoroughbreds for a season will produce rapid and profitable pork-makers. But there seems to be some difference of opinion, and a great lack of information in general, among farmers and breeders, as to the crosses that produce the best results. I recommend using a thoroughbred Berkshire boar with our common stock for producing hogs for breeding purposes; but as a principle I do not consider it advisable to cross the improved Berkshire with any other on their own account, but prefer rather to keep that breed distinct and up to the mark, by occasionally renewing with a foreign blood of its own kind. By foreign blood, I mean that of a distinct or unrelated family. They are a standard breed, very near perfection in themselves, possessing qualities that cannot be much improved upon without effecting the combina-

tion that constitutes the Berkshire, and stamps them with a character wholly their own, and which only requires to be kept up to the ideal of their style and perfection, to satisfy the requirements of almost every class, condition and locality. The true, well-bred Berkshire has the stamp of the thoroughbred, and great pains should be taken to perpetuate the purity of that blood.

The thoroughbred Berkshire is the boar you want with your common or scrub stock, to make the greatest improvement.

When it is desired to cross the Berkshire with some other thoroughbred stock for the purpose of getting longer bone, the Poland-China is the best. The result of a single cross will always give satisfaction, the produce being such as the general farmer of this country wants, and the hog that I believe pays the best. This cross continued upon itself will soon lose its identity with either breed, and eventually will result in a lot of mongrels. It will not do to select boars so bred for breeding purposes, but get boars from professional breeders, and in this way keep your stock up to the standard you wish.

CHAPTER IV.

THE BEST BREEDS TO RAISE.

The merchant buys and handles goods that he can realize the most profit from. There are certain articles that sell more readily than others, there being more demand for them; so the merchant is more particular about handling those articles that he can realize the most money from. And so it is with the farmer and stock raiser. They know that there is more money in raising certain kinds or breeds of stock than others. Of cattle, they know that the Short-Horn Durham is superior to the long-horned scrub. Also, that the Norman or Percheron

horse is superior to the mustang or broncho, and will sell at any time (as all large horses will), therefore they raise them where-ever introduced, more than any other kind of horses. Farmers know, at least most of them do, that it pays better to raise good stock, stock that is easy kept and that will command the highest price in the market when sold. The farmer should be as particular in keeping a good stock of hogs, as in keeping other blooded stock.

Some men say that fine hogs are less liable to the disease of cholera than scrubs. Now, if this is true, we should, by all means, raise the best and finest stock possible, viz: use all means possible for preventing cholera. I recommend raising those t hat are most profitable to the farmer, and that undoubtedly is good stock. Men differ in regard to which is the best breeds of hogs to raise. Some say a hog early matured is the best, such as the Berkshire; others say the Poland-China is best, because they do not mature so early, are larger boned, and make heavier hogs. The Poland-China is black, with white spots irregularly all over the body, of very large bone, the hams rounding and full, and very deep sides. It requires age to mature, and will weigh as high as seven hundred and fifty or eight hundred pounds when well fattened and full grown. They originated with Mr. Magie, of Oxford, Ohio, and are usually called the Magie hog. They are a cross of the Poland, Big Spotted China, the Big Irish Grazier, and the Byfield.

It is hardly necessary to speak of the Berkshire, to give a lengthy description of them, they are so common everywhere They are black, very light coat of hair, smaller boned than the Poland-China, small pointed ears, short nose, and nicely and compactly formed, and are gentle and easily handled, good feeders, and will fatten at any age. They are marked with an occasional white spot, especially in the face. Some have no white at all. I consider the Berkshire the most profitable of the thoroughbred breeds to raise.

The cross between the Poland China and Berkshire is a very profitable hog to raise. They are longer, larger boned, and have a thicker coat of hair than the Berkshire. They mature earlier than the Poland-China can be fattened at any age. They can be made to weigh from five to seven hundred pounds. When kept healthy, they take on fat very fast, are careful of their young, and excellent breeders. They are generally black, with occasionally a white spot. They are the medium hog, the one that stands between the two extremes—large and small. They combine the excellencies of both stock.

I have raised different breeds of hogs, and none of them were more profitable than the cross between the Poland China and Berkshire. They resemble each other very much, grow with the same treatment about the same size, and when fattened and sold bring the top of the market.

CHAPTER V.

BREEDING—BEST TIME TO BREED, ETC.

The best time to breed is through the months of January and February, and for later pigs through the month of March, but no latter. The pigs will come in three months and twenty days. The weather will be warm and settled; the pigs be more apt to live, and be less tronble. Young sows should not be bred earlier than the first of February (better a little later). In breeding them later, you are not so apt to lose them in pigging. Young sows especially should run on grass before pigging. By observing this you will very seldom lose any in this way. Never have brood sows too fat, if you do your pigs will not be so good. Sows should not be bred until nine or ten months old. Separate the brood sows from the other hogs; let them run in a grass field or pasture, well shaded. Give a little slop once a day; feed a little corn if necessary; give them all the water they want; give the cholera preventive, as directed, with the exception of copperas; feed sparingly; always guard against them becoming too fat. It is of great importance to the stock-raiser, that he take these necessary precautions at this time. A few minutes time spent in making a shed or cover over a sow, when a storm is coming up, will often save a valuable litter of pigs, which might o herwise be lost. I am satisfied that a very large proportion of valuable stock is lost annually through carelessness and neglect at this time. After the pigs have come safely, the success of the farmer will depend in a great measure upon the after treatment of the sow. She should be carefully

fed and watched, until the young pigs are at least a week old. I do not recommend high feeding before pigging, neither the first week after. But she should have a light diet for the first week or ten days, with plenty to drink, after which her food should be gradually increased in strength, until she becomes accustomed to it, the great object being to prevent her her from becoming clogged. A sow thus carefully fed until she can safely eat all she wants of a nutricious diet, will give a large quantity of nutricious milk.

CHAPTER VI.

CARE OF PIGS.

If the sow has a large litter of pigs, they should be taught to eat as early as possible. They should have the very best of food. Corn, ground and cooked and mixed with skim milk, and the waste from the kitchen, makes the best of food for young pigs. If it is not convenient to have the corn ground, it can be shelled and boiled until it bursts open, in which shape it is almost as good as when ground. When the weather is warm, it will answer almost as well to soak the corn until soft. Young pigs should have all the food they can eat and digest, and should occasionally have salt mingled with their food. They should have charcoal, or the common coal to run to. They should run in a clover or rye field, or large orchard. I consider pasture better for hogs, either young or old. I would not recommend pigs coming earlier than the twentieth of April, as it is attended with too much risk from cold storms. I am satisfied that pigs should be kept growing, never let them become stunted. All who adopt a liberal system of feeding with pigs will find it pays. I have been engaged in the rearing of hogs for a number of years, and my experience has taught me that a liberal treatment pays much better than neglect and skimp feed.

In my opinion one litter of pigs to the sow a year is enough. Some will differ with me on this point. I have found that raising winter pigs is a poor speculation, for it should be understood that young pigs are very susceptible of cold, and when exposed to it, though they may not die, their growth will be stunted, however fat they may become. Even the most comfortable houses will not protect them from the influence of the external air. If it so happens that you have a litter of pigs come in winter, take the best care possible of them, for it pays better to raise them, even if they are stunted, than to let them die. But most men will find it will not pay as a rule to raise more than one litter a year to the sow.

CHAPTER VII.

WEANING PIGS.

It is not best to let the pigs run with the sow until they are half or two-thirds grown; they keep the sow down poor. Take them away from the sow as soon as old enough; let them run in a grass field; do not feed much dry corn; they will grow very fine on slop and grass, and be much healthier. After they are weaned, give them the cholera preventive, in smaller quantities, for a month or two, and then give it the same as you do to others.

CHAPTER VIII.

DIARRHEA OR SCOURS IN PIGS.

The symptoms are a sore, swollen nose, in some with swollen lips and under jaw, with loss of appetite. Some do not have these swellings. The passages are at first whitish, but later in the disease they assume a dark green color, and are very thin. The pigs appear stupid, laying around their beds. They also have considerable thirst. Some die in three or four days, others dwindle away in three or four weeks.

It is better to prevent scours in pigs than to wait until they get them and then rely on a cure. I will, however, give a receipt for scours, one that is recommended as being very good: Mix together one drachm of prepared chalk, and one grain of powdered opium, and one grain of calomel; give this in a little thin gruel, to each pig, twice a day.

CAUSE OF SCOURS.

Diarrhea or scours in sucking pigs is caused by the condition of the sow. If a sow is pened up and allowed no exercise, the pigs are liable to scours The sow becomes constipated and feverish, and out of fix, and the pigs have the scours. Changing their feed to quick causes scours. I have noticed that sows kept up in dry pens, their pigs are more apt to have scours than those that run in the pasture; and as long as the sows are kept healthy, there is no danger of the pigs having diarrhea.

TO PREVENT SCOURS.

Treat the sows before and after pigging as previously stated. Give the cholera preventive to the sows as directed, with the exception of copperas. Do not feed the sows much dry corn while suckling. Never keep them shut up in a pen or lot, but let them run in the pasture.

CHAPTER IX.

FATTENING HOGS.

This subject is of great interest to every farmer who raises hogs. Just how to fatten hogs so as to put on the most fat with less feed and in the shortest time is something that every farmer should know. But we find men of considerable experience in fattening hogs differing in their manner of fattening. Some men think it best to keep fattening-hogs up in a small lot or pen, and keep corn by them, and not give them all the water they will drink. The general mode throughout this country is to feed dry corn out of the crib. But in other parts they grind, cook, and soak feed for fattening hogs, with a greater return of pork to the feed consumed, in a much shorter time, than the common mode of fattening.

I believe that a great many farmers, if they will take the trouble to look into the matter, will find that they are feeding to much less advantage than those that give the subject more time and attention. How much pork you can put on a hog, or how much pork costs per pound, of course depends in a great measure on the kind of hog and manner of feeding you adopt. I believe, after some experience, other things being equal, that a cross between a Berkshire sow and Poland-China boar will make more pork from the same amount of food than any other breed. They may not be as large at same age as the full Poland-China, but they will consume less food and keep in better condition. The general farmer of this country, who fattens and sells hogs every year, are not prepared to grind or cook feed for their hogs. They have not got the time to devote to that particular branch of their business, as the man who makes it a study and a specialty to produce pork. They should, however, devote enough time to select hogs that will fatten well, so they can get value received for their corn; and study into the best modes of fattening to keep them healthy, for the loss of twenty five or fifty fat hogs by cholera goes into a man's pocket. The best mode of fattening now for the practical farmer is to fatten on a sure plan; that is, never pen them up in a dry lot. Select such as you wish to fatten from the others about the middle of September or first of October (for it is not safe t commence while it is very hot). Commence feeding very

light. If you commence with green corn, you should be all the more particular, and not give them too much. Increase the feed gradually, until they are on full feed; let them run in pasture all the time. Have a plank floor to feed on. If you feed on the ground, rake all husks and cobs up and burn them. Husked corn is best for them; it will not make their mouths or teeth sore, and they always do better and fatten faster on it. Have a good shallow trough in the lot you feed in; give the cholera preventive as directed; feed so they will take it up clean, or in other words, never keep a half wagon load on the ground for them to run over and waste, as some do. Give them all the slop you can, and if you are situated so as to feed cooked feed of any kind, it will pay to do it. Never neglect to give them plenty of slop. Never feed in the mud if it can possibly be avoided. I have seen feed lots that were not fit for hogs to stay in, almost a quagmire, and they would be fed in this mortar. Let a man pursue this way of feeding in the mud very long, and he will see that it does not pay. If the grass is poor, you should be all the more particular about slopping or feeding cooked feed, for dry corn alone is too heating and will clog their system. There is much less danger of cholera when you let your fattening hogs run in the pasture; for the exercise and other food that they get counteracts to a considerable extent the bad effects of corn. By letting them run out, and slopping often, also giving the preventive regular, there will be no danger in feeding corn. Salt, given as directed, aids digestion, and produces fat.

CHAPTER X.

FEEDING COOKED FEED.

There has been a difference of opinion as to the economy of cooking feed for hogs. The best plan is to try it. A personal trial will be about the only thing that will settle the matter to the satisfaction of every one, and any farmer can try it

with but little expense. I will not argue the economy of cooking food for hogs, but will give a description of a boiler that is so cheap that all can give cooking a trial, and test the matter to their own satisfaction: Make a box of hard wood, and of the desired capacity, ends and sides sloping. For the bottom, use a piece of sheet-iron, as wide as the outside of the box. Place the box upon brick work (a trench in the ground can be made to answer the purpose), within which the fire is placed. It should have a door, with a damper beneath, to admit the air, that the fire may be properly regulated; the escape for smoke at the opposite end. In the end of the box should be a faucet or slide, through which the box can be emptied. The cover is movable, and should consist of plank cut on a level to correspond with the slope of the sides and ends of the box, and made to fit inside, not on the top; place a few loose cleats or supports at intervals in the bottom of the box after it is placed in position over the fire-box or trench, and upon these supports place a false bottom. The false bottom should be perforated sufficient to allow water to pass down and up freely, but the perforation should be sufficiently small to prevent considerable quantities of the food from passing down. The false bottom should be taken out whenever the box is cleaned, in order to prevent an accumulation of material beneath it. The object is to prevent food from burning, which it would do if upon the bottom of the box proper. I have heard this box highly recommended, even by one of our leading papers. At any rate it is worthy a trial. It not only has the merit of economy in construction, but of being economical in operation. The box will hold all that will be required at one time. The fire-box or trench should be a little narrower than the bottom of the box, so that the fire will not act directly upon the bottom where it is nailed. Use white-lead in the cracks of the box Such an apparatus as here described will cook corn admirably, and would answer the purpose of all common farmers. Now, if corn unground is cooked long enough to become soft, it will probably be found to answer all the purposes of grinding. Such an apparatus can also be used for soaking corn, when not desired to cook it, and when hog killing time comes it will be found of great use as a scalding tub, keeping fire under it all the time, and reducing the heat of the water when necessary by adding cold water. With such an arrangement, you can always have slop for your hogs. When potatoes are plenty and cheap, like they were two years ago, it would be better to cook them for the hogs, than to let them rot, as a great many did. One advantage of feeding

cooked feed is this: it affords a change of feed for hogs; it counteracts the effects of dry corn, and any food that is good for the hog he should have. At any rate it will pay to provide cooked feed for sows that are suckling, and the growing pigs. It will keep them growing, and you will have fewer runts.

CHAPTER XI.

WINTERING HOGS.

GREAT numbers of hogs die every winter from neglect, that is, not being wintered properly. The hog is an animal that is very susceptible to heat and cold; therefore, the farmer should provide for his comfort, either in extreme hot or cold weather. It is humane, and also profitable, for him to do so. In winter, the hog should be kept comfortable, but not too warm. How to do this involves differences of opinion. "Many men have many minds," therefore the many different ways men have of careing for hogs through the winter. Some let them run in the pasture or field, others keep them up. Some have houses for them, others do not, but let them pile up in fence corners or around the straw stack. Some have high, tight fences on the north and west for wind breakers, other low houses or sheds covered with straw. Some have board houses, roomy and well ventilated. Hogs that do not have any bedding in cold weather, pile up so much as to kill a great many. The farmer will go out in the morning, after a severe cold night, and find one, two, three, or maybe a dozen, mashed or smothered to death. Those not provided with bedding or houses, you hear squealing and making a noise all hours of the night. All that neglect their hogs, so are neglecting their own best interests. The low, straw sheds or houses that some use, are entirely too warm; being covered with straw, the steam raising from the hogs, cannot escape readily, and it becomes too warm, the hogs get mangy, and coming out of such a warm place, the exposure to the cold air is bad for them; it gives them cold, affects their

throat and lungs. You have heard hogs coming out of a hot house or beds, where they piled up, cough or wheeze. It would be better to have a good wind break and furnish the hogs with plenty of bedding than to have a hot, straw-covered house for them. It will pay any man, if he is feeding stock in winter, to have a high, tight fence or shed on the west and north of his feed lot, whether feeding cattle or hogs. Hogs cannot fatten in extreme cold weather as fast as they would if kept warm. I have lost hogs by pileing up, simply because I let too many of all ages run together and lay in the same beds. The best way is to have a hog-house, made out of lumber, with a floor in it; they do not cost much, and a man with a large number of hogs can save enough probably in one winter to pay for them. Have them well ventilated, so the steam from the hogs can escape; use hay or corn stalks for bedding. Separate the shoats from the large hogs, so they will not get mashed or crippled. Large, fattening hogs stand cold weather better than shoats, because they have more animal heat in them. It is not best to let more than twenty or twenty-five hogs stay in the same lot or house of extreme cold nights; if heavy hogs, not so many. By dividing them out in this way, in cold weather, the farmer can save money that otherwise would be mashed to death. I said, in a preceding chapter that more hogs die in winter than any other season of the year; the reason is this: too many are allowed to run together, they pile up and smash some, smother some, and cripple others, and bruise themselves so much as to become easily diseased. More die in winter, not because cholera is more prevalent at this season of the year, but because not enough attention is given to wintering them properly in our severe climate.

Miscellaneous Chapter.

CHAPTER XII.

LICE ON HOGS.

Hogs sometimes have lice on them to such an extent as to reduce the hog's weight very fast, and if nothing is done to kill the lice, the hog will die, and be considered a victim of cholera. Lice on hogs is caused by them bedding in old beds that have been used for a considerable length of time, without change, or their laying in old straw-covered houses that have been used for several years. Some men say that lice kill a great number of hogs. Whether they do or not, hogs will not do well or be perfectly healthy with them. So it is best to kill them. If you see that your hogs have lice, mix lard and sulphur and rub on their backs and sides, also behind and around the ears. If this does not kill them, stew up some tobacco and rub the juice on them; this is the surest means of killing them. It is better than washing in soap suds.

TO PREVENT SOWS FROM EATING THEIR YOUNG.

The habit of some sows of destroying their young is certainly a very annoying one. Different theories have been advanced as to the cause, and different plans to prevent it have been proposed. The cause of sows eating their pigs is the want of salt and grease in their food, just before and immediately after pigging. At the time of pigging, they have a craving for meat, for flesh of any kind, and for salt. And, if some sows cannot get it, they eat their pigs. Some think sows eat their pigs because not fed enough, and that it is hunger that makes them do it. As I said before, it is craving for salt and flesh. Sows that are fed plenty of corn and slop sometimes eat their pigs. I had a sow that eat two litters of pigs soon after they would come. Just before pigging the next time, I thought I

would feed her some meat; so a few days before pigging, and for several days after, I fed her some pickled pork, and she never eat or injured a pig. I have tried it since, and found it to be effectual in preventing sows from eating their pigs. Some men use coal oil. Wet a sponge and put a little on the pigs. But the other is the safest and best plan.

FEED FOR SOWS.

Excellent feed for sows may be made into chops. Three bushels of corn, one of oats, one of rye, or mill stuff, makes excellent slop, when steamed, for sows and pigs, by boiling a barrel of water and then stirring in one bushel of this chop and letting it boil. Or fill a barrel with clean water and put in a bushel of this chop, and let it stand until it ferments a little, and it will answer a good purpose, and the sows and pigs will thrive finely.

CASTRATING PIGS.

It is best to cut pigs young; it hurts them less and does not stop their growth or stunt them in any way. There is then no danger of your stock breeding in and in, and the pigs are easier handled than when older. In cutting them young, there is not so much danger of loseing them. If any are ruptured, or as they are commonly called bussens, cut them and sew the cut up.

HOW TO KEEP A BOAR.

We read about care bestowed upon stallions, bulls, and other breeding animals, but rarely do we ever see a word on the care of boars. They are usually raised with breeding sows, and run and worry and become nothing but runts. They disappoint their owners, and everybody else. Now it is just as important to take care of a breeding hog as it is of a horse, and a good pen or yard should be used to enclose them. They can be well fed and made to grow, and if their services are needed, it is easy to have a door or gate to let breeding stock in. If this plan is followed, one will have a far better animal and far better stock. The slop of the kitchen, sour milk, vegetables, bran, and soaked corn can be fed to him.

BEEF BRINE.

Never give your hogs beef brine, for it will kill them. If

you do not believe it, try it, like a man I know of. He heard that beef brine would kill hogs, and did not believe it; he had several nice hogs, he tried it, and since then he says beef brine will kill hogs.

KITCHEN FATTENING.

The question has been asked me, why do not hogs kept up in close pens and fattened on corn, dish water, and buttermilk, and slop of all kinds, die with cholera. I answer that they do, sometimes; but as a general thing they are healthy. The reason is this: they are allowed a greater variety of food than the other hogs. The farmer will pen up two or three shoats in a close pen, and feed them as much slop as he does all his other hogs. They get all the dish water and buttermilk. The milk is cooling and good for them. They get grease in slop and in dish water, which is the very thing for them. Hogs generally do not get enough grease. There is also salt in the slop from the kitchen, and they get more or less of it every day. Their getting milk, and grease, and salt, and a greater variety of food, counteracts the bad effects of confinement, and not being almost entirely limited to corn as their food, cholera is prevented. Hogs that run out, slopped the same way, would never have cholera.

COMMON SALT.

Salt is composed of two elements that are entirely different from the compound which they form. One of them is a gas which is so suffocating that no one can breathe it clear and live. The other is a metal which has such an affinity for oxygen that if it were introduced into your mouth it would set the moisture there on fire in seizing its oxygen. And yet the compound which these two elements make, is a very mild substance, which we take into our mouths every day in our food. It is most widely diffused in the animal and vegetable, as well as the universal world. It all originally comes from the mineral world, and being absorbed from the soil by plants, through them it gets into the blood by their food. What its special uses are in animals, beyond the fact that no food can be digested without it, we know not; but that it is essential, its constant presence in the blood shows.—[From Hooker's Chemistry.

I give this from Hooker's Chemistry to show the powerful elements that are united in the composition of common salt.

SALT FOR ANIMALS.

We use salt instinctively with our food; with some articles, as potatoes, more than with others. As it is not as abundant

in plants as it is in animal food, considerable pains are taken to supply our domestic herbiverous animals with a sufficiency of this important article of diet. And to meet the instinctive desire of the wild animals for it, there are places where it exists in the soil to which they can resort for it. Such are the deer and buffalo licks of this country. Animals of any kind to do well must have salt often. Horses that are well salted have a slick coat of hair, and are much more lively than those that are not salted regular. Cattle feeders are very particular about salting their cattle regular. Salt keeps them healthy, gives them appetite, promotes digestion, and consequently produces fat. The farmer is particular about salting his horses and cattle, but not so much so in salting his hogs. Do farmers generally pay as much attention to salting their hogs as they do their other stock? I answer, they do not. Some scarcely ever salt hogs, and when they do they salt them on the ground, and the hogs running over it soon scatter it, and they do not get enough. We eat salt more or less every meal. The hog gets it once a week, or once a month, and sometimes not at all. It is just as necessary that the hog should have salt as any other animal, and if any difference, more. Hogs, to remain healthy, must have salt, and plenty of it.

CHAPTER XIII.

BEST MEDICINE FOR HOGS.

Salt stands preeminent as a medicine for hogs. It is best, it stands above all known remedies and medicines for preventing disease in hogs, given as directed in this pamphlet. It being dissolved in water, they can get more of it than by any other way. It will not hurt them; you can give enough to vomit them without fear of injuring them in the least. It is cooling to their system, it assists digestion, and furnishes them with what their systems are calling for every day.

TOBACCO.

A teaspoonful of pulverized tobacco to the hog, once every two weeks, keeps them free from worms, and if given once a week, removes worms, if they have them. Hogs do not crave tobacco as much as man, but it is a worm destroyer nevertheless. Sulphate of iron, which is more commonly called green vitroil or copperas, is extensively used as a medicine for hogs. It has proved itself to be good medicine for cholera. Copperas is one of the ingredients of nearly all the receipts for cholera. I believe it acts as a blood purifier, and for such I use it.

CONCLUSION.

FARMER, hog raiser, I would say in conclusion, as in the introductory, that the object of this pamphlet being written is to give to you the means of preventing cholera. To all who know how to prevent it, and those who never lose hogs with cholera, I will say this: Compare your treatment with the teachings and principles here set forth, and see if they are not the same, or at least similar. I would also ask, does neglect keep them healthy? To the man who loses hogs with cholera: Do you treat them as recommended in this book? Do you believe what you have read in this book? If you do not, the best thing for your pocket's sake is to either quit raising hogs, or believe as quick as you can what you have read; and not only believe it, but practice it, for every sentence has been penned for your benefit. Let those who choose to ignore these means, go on unbenefited by them. But the wise man (whether he believes the theories advanced or not) will make a practical demonstration of them before condemning them, and if they find any merit in them, (which they undoubtedly will), they will give the author the benefit of it be recommending it to their neighbors.

There are thousands of men who, if they think it is a good thing in the way of preventing cholera, will, out of goodness of heart toward their fellow man, sound its praise far and wide.

As has already been said, it does not claim to be a treatise on the hog, and all that has been said that does not bear on the subject of hog cholera, is entirely gratuitous.

This subject deserves, and will yet receive, a more elaborated authorship; but in point of practical value, this, as yet acknowledges no superior.

One great cause of cholera is the lack of the proper medicines to keep them healthy. This cause is removed by giving them what has already been recommended.

Reader, you who have purchased this pamphlt, have you learned anythin g by the perusal of these pages? Have you read anything that will be the means of your saving one hog? If so, you have value received for your money. If it enables you to prevent cholera, HOW MUCH is it worth to you?

May this pamphlet be the means of preventing cholera wherever it goes, is the sincere wish of its author.

THE END.

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By W. T. BROOKING.

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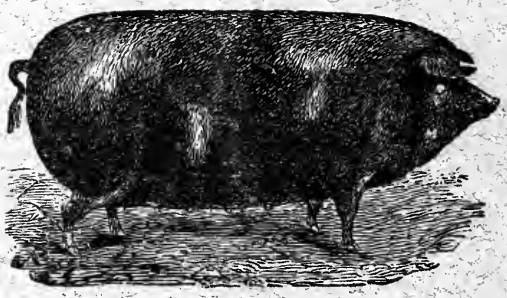
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